



Australian Government

UEECD0061 Write specifications for refrigeration and air conditioning engineering projects

Release: 1

UEECD0061 Write specifications for refrigeration and air conditioning engineering projects

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Application

This unit involves the skills and knowledge required to write specifications for a refrigeration and air conditioning engineering project.

It includes determining refrigeration and air conditioning engineering project specifications, documenting design and technical requirements, and obtaining approval for the project specification.

No licensing, legislative or certification requirements apply to this unit at the time of publication.

Pre-requisite Unit

Not applicable

Competency Field

Cross Discipline

Unit Sector

Electrotechnology

Elements and Performance Criteria

ELEMENTS

Elements describe the essential outcomes.

- 1 Prepare refrigeration and air conditioning engineering project specification requirements**

PERFORMANCE CRITERIA

Performance criteria describe the performance needed to demonstrate achievement of the element.

- 1.1** Work health and safety (WHS)/occupational health and safety (OHS) procedures for relevant work area are identified and applied

- | | | |
|----------|---|--|
| | 1.2 | Techniques for specification writing are reviewed and adopted in accordance with workplace procedures |
| | 1.3 | Scope of the specification is determined using formal evaluation/survey processes |
| | 1.4 | Criteria from other related works impacting on the specification are determined from relevant documentation, site visits and/or discussions with relevant person/s |
| 2 | Write refrigeration and air conditioning engineering project specification | |
| | 2.1 | Specification is developed to include scenarios/requirements determined in consultation with relevant person/s and regulatory requirements |
| | 2.2 | Specification is developed in collaboration with relevant design professionals and contractors involved in the project |
| | 2.3 | Competent person/s required for the project is identified and their roles specified in the specification |
| | 2.4 | Project specification is reviewed and adjusted to rectify any anomalies |
| | 2.5 | Project specification is developed in accordance with workplace procedures |
| 3 | Obtain approval for refrigeration and air conditioning engineering project specification | |
| | 3.1 | Project specification is presented and discussed with relevant person/s |
| | 3.2 | Alteration/s to project specification resulting from discussions is negotiated with relevant person/s in accordance with workplace procedures |
| | 3.3 | Project specification is finalised and approval obtained from relevant person/s |

Foundation Skills

Foundation skills essential to performance are explicit in the performance criteria of this unit of competency.

Range of Conditions

Range is restricted to essential operating conditions and any other variables essential to the work environment.

Non-essential conditions may be found in the UEE Electrotechnology Training Package Companion Volume Implementation Guide.

- Writing specifications for refrigeration and air conditioning engineering project must include at least the following:
- one medium-sized refrigeration/air conditioning engineering project with the following attributes:
 - meeting safety requirements
 - determining client expectations
 - applying cost-effective solutions
 - designing and technical documentation requirements

Unit Mapping Information

This unit replaces and is equivalent to UEENEEE073B Write specifications for refrigeration and air conditioning engineering projects.

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>

Assessment Requirements for UEECD0061 Write specifications for refrigeration and air conditioning engineering projects

Modification History

Release 1. This is the first release of this unit of competency in the UEE Electrotechnology Training Package.

Performance Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions on at least one occasion and include:

- establishing the scope and parameters of the specification
- determining the impact of other related works
- developing the specification incorporating scenarios and all requirements
- identifying competencies required for the specification
- writing specifications
- negotiating alterations to the proposed specification successfully
- obtaining approval of the final specification
- dealing with unplanned events
- applying relevant work health and safety (WHS)/occupational health and safety (OHS) requirements and workplace procedures and practices, including the use of risk control measures
- identifying and applying project risk management strategies.

Knowledge Evidence

Evidence required to demonstrate competence in this unit must be relevant to and satisfy all of the requirements of the elements, performance criteria and range of conditions and include knowledge of:

- refrigeration and air conditioning engineering specification development, including:
 - refrigeration and air conditioning engineering specifications encompassing:
 - purpose and nature of specification
 - performance-based specifications
 - prescriptive specifications
 - acceptable evidence of compliance
 - additional service required with the supply of equipment
 - dealing with suppliers and manufacturers encompassing:
 - documenting specification
 - customer/client relations:

- importance of customer/client relations
 - interpersonal skills that enhance customer/client
 - dispute resolution
 - customer/client relations strategies
- using basic computers functions encompassing:
 - starting up
 - selecting application
 - entering information
 - saving
 - printing
- research skills encompassing:
 - terminology - terminology used in a research workplace and terminology used in research-specific literature
 - theory – reasons for conducting research, the history of research, past research successes, past research failures, research protocols and research practices
 - the research environment - the research work environment; standard research practices; industrial, legal, ethical, political and market environment considerations; legislation and regulation; and contractual obligations of all parties
 - planning to conduct research - concept development and/or research brief analysis; research objectives; research deliverables; research project plan; literature reviews; methodology development, including experimental design, technology selection and information management system selection
 - clients - identifying client viewpoints and stake in project; identifying client requirements and parameters; determining research budgets, timelines, milestones and quality attributes with clients
 - research, development and commercialisation - research and development goals versus commercialisation goals and realities, and research and development to inspire a commercialisation process
- project management principles, including:
 - process for amending specifications
- relevant manufacturer specifications
- relevant WHS/OHS legislated requirements
- relevant workplace policies and procedures
- research methodologies.

Assessment Conditions

Assessors must hold credentials specified within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must satisfy the Principles of Assessment and Rules of Evidence and all regulatory requirements included within the Standards for Registered Training Organisations current at the time of assessment.

Assessment must occur in suitable workplace operational situations where it is appropriate to do so; where this is not appropriate, assessment must occur in suitable simulated workplace operational situations that replicate workplace conditions.

Assessment processes and techniques must be appropriate to the language, literacy and numeracy requirements of the work being performed and the needs of the candidate.

Resources for assessment must include access to:

- a range of relevant exercises, case studies and/or other simulations
- relevant and appropriate materials, tools, equipment and facilities currently used in industry
- resources that reflect current industry practices in relation to writing specifications for refrigeration and air conditioning engineering projects
- applicable documentation, including workplace procedures, equipment specifications, regulations, codes of practice and operation manuals.

Links

Companion Volume implementation guides are found in VETNet - -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b8a8f136-5421-4ce1-92e0-2b50341431b6>